

CREATOR

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Worlds of Darkness – Part Two HIDDEN TREASURES OF THE DEEP

"Praise the LORD from the earth, Sea monsters and all deeps." Psalm 148:7

Whale: "All the wonderful things you shared with me about caves has really got me thinking, Bat. So many similarities exist between your world and mine!

"Early on, you mentioned that you use sonar to find your way in the dark.¹ We're very different creatures, yet the Lord gave me this same skill. When I dive into the sea's inky black abyss, in search of food, I produce a series of clicks that bounce off objects and allow me to 'see' in the dark.

"We're also similar in how we move. Creator Jesus made us 'to fly'—you in air and I in water. He gave you wings and blessed me with fins for much the same purpose. On the other hand, you're able to turn on a dime and dart about. My size prevents me from maneuvering that fast."

Bat: "Yes, but God allows you to do something I could never do—dive a mile or more into the crushing depths of the ocean. Even with all man's technology and ingenuity, people cannot so easily descend to

that depth. I'm anxious to know how you do it."

Whale: "Well, it's not that I do it, but Creator Jesus does it for me! As I dive, my lungs collapse; this prevents nitrogen from building up in my blood, which can be fatal. God designed my body to automatically shunt blood and oxygen from my flippers and less essential organs, like my digestive tract, to my brain. He also supplied me with a greater than normal number of red blood cells, and a special protein in my muscles that stores oxygen.² As a result, I'm able to stay submerged for up to 90 minutes."

Bat: "I've shared with you the number and extent of caves throughout the world; can you please tell me something about the deep sea?" Whale: "Oh, yes. The sea floor makes up three-quarters of Earth's surface and its average depth is two and one-half miles or 4,000 meters. In many ways, it is much more



1 SONAR stands for SOund Navigation And Ranging. 2 Myoglobin

inhospitable than subterranean ecosystems." **Bat:** "I have no doubt of that."

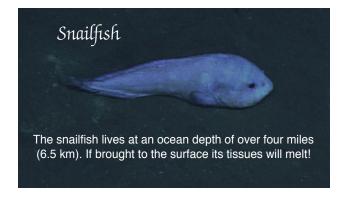
Whale: "The average temperature of Carlsbad Caverns in the United States is 56° F or 13° C. The temperature near the sea floor hovers around 34° F or 1° C, just above freezing.

"Most caves possess an air pressure pretty close to what's found at sea level. Scientists describe this as one atmosphere (1 atm) or 15 pounds per square inch. People and animals don't normally sense this pressure because they're used to it.

"But as I descend deep into the ocean, the pressure on my body increases by one atmosphere for every 33 feet or 10 meters I dive. In order to find tasty squid, I usually need to descend one mile under the surface. At that depth, the water pressure surrounding me is 160 atm or 2,400 pounds pressing in on every square inch of my body. I thank God for creating me as He did—very few surface animals can survive that kind of crushing pressure."

Bat: "Are there any fish that can survive at that depth?"

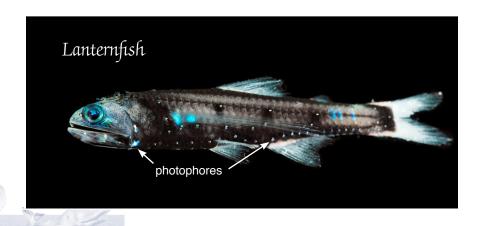
Whale: "You bet there are, Bat. Creator Jesus made thousands of species of fish and other creatures that thrive there. But their body design is quite different from shallow water animals. For one thing, God engineered the cells of these organisms in a very special way. If a surface fish were to dive one or two miles underwater—if that



were even possible—their cells would simply stop working. Our Lord normally creates cell membranes using saturated fats. As one descends deep into the water, the increasing pressure causes these membrane fats to solidify and become very hard, like cold butter. When this happens, the fish dies.

"So, Creator Jesus, in His infinite wisdom, formed the cell membranes of deep sea fish with a fat that is more akin to vegetable oil—that is, with unsaturated fats. At depth, these cell membranes are firm but not hard. The only problem is if these fish are brought up from the deep, as in a trawling net, the fat of their cell membranes becomes very soft and the fish more or less melt."

Bat: "Oh, what a horrible thought."
Whale: "Well, God didn't intend them to
be brought to the surface. Even using high
pressure aquariums, it's extremely difficult
for man to keep deep sea fish alive. Our Lord
created them for this special environment to
shine His glory in this unique way!



"Because the world they live in is perpetually dark, our kind Creator supplied most creatures in the deep sea with their own lights."

Bat: "You mean, like those that fireflies have?" Whale: "Yes, but even more spectacular. Scientists refer to the special lights of deep ocean creatures as photophores. God could have made these underwater lights all alike, but He created dozens of types. In fact, a single species may possess ten or more unique kinds of photophores arranged in beautiful and complex patterns. He is surely a Creator of extravagant glory!"

Bat: "What are the photophores used for?"
Whale: "Some creatures use them
for defense. The glowing arms of a
bioluminescent jellyfish may attract a
predator, but are easily detached allowing the
jellyfish to escape. Some fish use photophores
to see their way around—kinda like
headlights. The flashlight fish of the Red Sea
has one photophore located under each eye to
see in the dark. God does whatever it takes to
care for His creation.

"But other creatures use their lights to attract prey, which they eat. The anglerfish has a single photophore placed at the end of a long tentacle that hangs in front of its face. If another fish tries to investigate this glowing 'lure,' it is quickly snatched into the anglerfish's mouth."



Bat: "That's amazing. There is an insect living in the caves of New Zealand that does basically the same thing. Its glowing larvae hang mucus-coated threads of silk from the cave's ceiling. When unwary moths and other flying creatures investigate the glowing threads of silk, they are often caught in its sticky mucus . . . and then consumed by the hungry larvae."

Whale: "You see! God created so many similarities between the cave environment and deep sea ecosystems.

"The greatest of all ecosystems on Earth is that found at the sea floor, the marine benthic zone. This region covers 90 percent of the ocean bottom. Once thought to be relatively devoid of life, it is now suspected to be the richest place on Earth for biology. There may be more kinds of animals on and in the ocean floor than any other ecosystem—possibly as many as two million species."

Bat: "Why was it once thought to be so

Bat: "Why was it once thought to be so barren of life?"

Whale: "Well, until recently, mankind has not had the technology to easily explore depths two or more miles under the ocean. And it is well known that the amount of food reaching the benthic zone is very small compared to food available at the surface." Bat: "That's the way Creator Jesus feeds most cave creatures—with a lean diet." Whale: "Yes, both ecosystems can teach people a profound lesson. Human civilization is accustomed to thinking, 'More is better.' Yet, in the deep sea, creatures thrive on a strict, relatively unpalatable diet of tiny dead animals, fecal material, and decaying bits of plant life. And as with caves, sometimes logs sink to the bottom of the ocean and become a source of food. All these things are almost identical to what God feeds organisms living in caves.

"From time to time, He demonstrates His lavish generosity by sending a large whale carcass to the ocean bottom, which then becomes a year long feast. It's similar to when a large animal enters a cave and dies, providing abundant food for the creatures living there.

"Not only are the variety of animal species numerous at the ocean bottom, but some are colossal in size. Ocean explorers have recovered enormous worms, giant sea spiders, clams the size of dinner plates, and a two foot long isopod or 'pill bug."



Bat: "I realize that bats can be quite frightening to people, but why would Creator Jesus make a giant pill bug?"

Whale: "I think there are two reasons:

1) That we would understand how different His mind works from ours and that by nature He is otherworldly, and 2) that He is extremely kind. In fact, no one is kinder than Him."

Bat: "How do we see His kindness in this terrifying creature?"

Whale: "Simple, He put it at the bottom of the ocean and not in someone's backyard or basement. At the same time, God has allowed scientists to discover it that people might better fear Him!"

Bat: "Oh . . . yeah, I hadn't thought of that." **Whale:** "Our discussion of the similarities

between subterranean and deep sea ecosystems extends to the sulfuric acid caves you mentioned earlier."

Bat: "Are there sulfuric acid caves at the bottom of the ocean?"

Whale: "No, but something quite like them . . . hydrothermal vents. These are located in the sea where volcanic activity is found. Superheated water, rich in sulfur compounds, gushes upward through cracks in the Earth's crust. Despite a water temperature that exceeds 860° F or 460° C, life flourishes near these vents."

Bat: "That's as hot as the surface of the planet Venus!"

Whale: "Yes, and most amazing of all, our Lord has populated these hydrothermal sites with a great variety of animals: clams, crabs, shrimp, fish, snails, lobsters, anemone, and so on."

Bat: "How does our Lord keep them from becoming Paella?"

Whale: "Remember, Bat, the water at this depth hovers around 34° F or 1° C. The scalding hot vent fluids quickly cool in the ocean's frigid environment. The creatures living nearby seem to enjoy the warmer water though.

"The biggest surprise of the hydrothermal ecosystem was the discovery of giant vent worms in 1977. These six-foot-long, bright-red worms live in specially made tubes composed of the same material as an insect's exoskeleton. Things got really strange when scientists learned that these worms possess no mouth or stomach. Creator Jesus—in all His inventive brilliance—placed inside these tube worms a unique organ called a trophosome. The trophosome is the site within the worms where sulfur-eating bacteria convert toxic hydrogen sulfide into sugar:

hydrogen sulfide → carbohydrate + carbon dioxide (sugar)



Bat, these bacteria are exactly the same as the bacteria found in sulfuric acid caves!

"The red color of the tube worms is due to hemoglobin, a complex molecule in our blood that carries oxygen. Apparently, God added zinc to their hemoglobin, which allows the worms to safely transport hydrogen sulfide (plus oxygen and carbon dioxide) from their gills to the trophosome. The worms literally breathe in toxic chemicals to obtain energy and produce food."

Bat: "Hey, wait a minute! I remember hearing another bat talking about a unique sulfuric acid cave located beneath the town of Steamboat Springs in Colorado. Recently, deep-red worms were discovered living there. Apparently the worms' red color also comes from hemoglobin. But how could two creatures—one from the deep ocean and the other high in the mountains beneath a ski town—be so similar?"

Whale: "Our Creator Jesus is how! His handiwork often reflects the nature of the Triune God, showing unity in diversity."

"There is one last similarity between our two worlds I'd like to mention. Bat, you commented earlier that some cave creatures live fairly long lives. The same is true for several benthic animals. I suppose their longevity can be explained by the same simple principle: our Lord slows the metabolism of deep sea organisms thus causing them to live longer. Some deep sea fish survive 50 years, and century-old clams are not uncommon. It's thought that tube worms residing near cold water vents may live hundreds, possibly a thousand years. I think that Creator Jesus does this to show, once again, that He is the God of Life!"

Whale and Bat talk several minutes more, then decide to return home—Whale to the open ocean and Bat to his seaside cave. Although their conversation was make-believe, it is wise for us to realize that all the creatures of our Triune God tell us something profound about His glory:

"But now ask the beasts, and let them teach you;
And the birds of the heavens, and let them tell you.
Or speak to the earth, and let it teach you;
And let the fish of the sea declare to you.
Who among all these does not know
That the hand of the LORD had done this,
In whose hand is the life of every living thing,
And the breath of all mankind?" Job 12:7-10

3 See CREATOR Volume 19 Number 2.

A WEIGHTY WARNING

Jesus spoke more about Hell than Heaven. Hell is not preached much today for most find it objectionable. Then why did Jesus teach so often about Hell? . . . Because He is good and desires that all people know the truth! Jesus knew that most of humanity would be cast into Hell because of their rejection of Him as Lord and Savior. That's why He often described Hell in such graphic ways—to awaken hearts and minds to its awful reality.

One such illustration that our Lord used was that of being thrown into the depths of the sea with a heavy millstone hung around one's neck (Matthew 18:6). The millstone of His day was used to grind wheat and could weigh as much as several hundred pounds. This picture of God's anger against sin and its punishment teaches us several things:

1) God will not allow His own to be corrupted by the world, 2) the punishment that a sinner receives from His hand is inescapable (who could possibly stay afloat with such a heavy weight placed around their neck?), and 3) Hell can be likened to being crushed forever in the "outer darkness" of the ocean depths.

We should take such teaching very seriously! The eighteenth century pastor Jonathan Edwards most certainly did, as his description of Hell proves: "The soul will utterly sink down and will be . . . entirely crushed . . . "4 Many today wrongly believe that God will punish no one because "He is just too loving." God is love (1 John 4:8, 16), but He is also holy and just (Psalm 77:13; 119:137). Our foul sins are an infinite offense against an infinitely holy God demanding infinite payment and punishment. God's compassion has been seen throughout history in His sending prophets to warn mankind of His impending judgment for their sins, and rebellion against their Creator. His greatest love for people, however, is demonstrated in His sending His Son to warn

us about the reality of Hell and to provide the only escape from its eternal sentence. In place of His own people, Christ (being both God and man) suffered an infinite punishment upon the Cross and shed His blood as the Atoning Lamb (Exodus 12; John 1:29; Revelation 5:6)—the only infinite payment that could be made for sin. Do you believe this?

Our study of the crushing ocean depths teaches us that Creator Jesus is the God of Life. But it also drives home Christ's own illustration (Matthew 18:6) of what will happen to those who cause others to sin, especially His own. The problem is this: we're all guilty of causing others to sin. We will all be thrown into the crushing blackness of Hell unless we repent of our sins and believe in God's Son. That's the bad news. The good news is that God's Spirit can lead us to repent and believe.

If you fear that the "watery depths" of Hades await you, then plead with God to give you His Son—and the forgiveness that only He can provide—and move you to receive Christ, the Light and Life of mankind.



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⁴ Taken from the sermon titled, "The Wicked Hereafter Will Be Cast Into a Furnace of Fire," May 1733.